

TECHNICAL DATA SHEET

Paintbond 310

Cleaner and Iron Phosphate

Description	A combination cleaner and Iron Phosphate coating for steel, zinc (Mazak, Zintec, Galvanised) and aluminium surfaces. Provides a phosphate coating of 0.2 – 0.4 g/m ² .
Features	<ul style="list-style-type: none">• Can be used by dip or spray (tunnel or washing machine) processes.• Degreases normally oily surfaces.• Improves paint and powder adhesion.• Operates at low temperatures - reduced energy.• Forms very little sludge – low maintenance costs.• Concentrated product for economy.
Product Code	MP0215
SG	1.32 ± 0.1 kg/l at 20°C.
Coverage	Consumption will depend greatly on bath losses through drag-out and overspray. As a guide the following ranges have proved reliable: Dip: 100 – 200 m ² /kilo of Paintbond 310. Spray: 150 – 300 m ² /kilo of Paintbond 310.
Equipment	Dip: the Paintbond 310 tank and water rinse tanks should ideally be made of stainless steel, or lined with polypropylene or rigid PVC. Spray: parts of the plant that are in contact with chemicals or water (e.g. tanks, pumps, impellers, spray equipment etc.) should ideally be made from stainless steel, or from polypropylene or rigid PVC.
Initial Fill	Fill the bath with mains water - for every 1000 litres of bath: By Dip: <ul style="list-style-type: none">• Add 22 litres of Paintbond 310.• Warm the bath and stir thoroughly. By Spray: <ul style="list-style-type: none">• Add 10 litres of Paintbond 310.• Warm the bath and circulate through the spray jets for 5 minutes. Detergency: To improve cleaning, if the work is significantly oily, Paintbond Detergent Additive 'A' (MP0240) may be added to increase detergency, normally up 1 litre MP0240 per 1000 litre tank.
Application	The process sequence is: 1. Phosphate by Dip or Spray 2. Rinse - normally 2 stages (see Rinsing below). 3. Dry-off (see Drying below). Pre-Cleaning: if the work is oily and/or corroded, prior cleaning may be required by e.g. <ul style="list-style-type: none">• T Cleaner 70 (MP0035) for dip removal of oils and grease• T Deruster 9 (MP0203) for dip derusting• T Deruster 25 (MP0006) for brush application derusting. A range of Trimite cleaning wipes are also available – please ask for details.

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Control Points

	Dip	Spray
Concentration	23 - 30%	8 - 15%
Acidity (pH)	4.0 - 4.5	4.0 - 4.5
Temperature	40° - 60°C	35° - 55°C
Time	3 - 6 min	2 - 4 min
Spray Pressure	n/a	0.8 - 1.5 bar

Analytic Control

Titration:

Measure 10 ml of the bath into a flask and add 4 – 6 drops of Phenolphthalein Indicator solution. Titrate with 0.1 M sodium hydroxide until the colour changes to a permanent pink.

Titration (ml) x 2.5 = % of Paintbond 310.

A Test Kit (**MP0604**) containing all the necessary items and replacement chemicals is available from Trimite.

Acidity:

Measure pH using an accurate and reliable meter or narrow range (4 to 7) pH paper. Normally, the pH will be restored to the correct level when Paintbond 310 is added. Should the pH remain high, please consult our Technical Service team.

- PB Acid Adjuster 2 (**MP0226**) may be needed to compensate for alkaline build-up from poor mains water or emulsified oils.
- PB Alkaline Adjuster 1 (**MP0225**) is also available should the pH be too low.

Rinsing

Dip: The work should be rinsed thoroughly with water in tanks fitted with weirs and continuously overflowed with mains water.

Spray: Similar holding tanks are suitable, but the clean water is better introduced over the work through the last spray risers. The overflowed water can be used to overflow to any rinses prior to the Paintbond 310 stage. Improved results can be gained by using demineralised water and PB Seal F (**MP0232**) (which is chromium-free), in a warmed final rinse; in this case the rinse is not normally overflowed, but should be changed regularly.

Drying

For most reliable results, the work should be dried in an indirect-fired oven at 70° - 125°C.

Tank Maintenance

Paintbond 310 forms a small amount of sludge in normal use, that will need periodic removal. The tank should be allowed to settle, the clear liquid transferred to an adjacent rinse tank, and the tank and heating surfaces cleaned. The clear liquid can then be returned to the cleaned tank, and replenished with water and Paintbond 310.

Shelf Life

2 years from date of manufacture when correctly stored in unopened containers.

Storage

The product should be stored in cool, dry, frost-free conditions, in sealed containers.

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Health & Safety	Refer to the product's Safety Data Sheet and safety advice on the product label before use.
Technical Support	For technical support in using this product, please contact: e: birminghamtech@trimite.com , or t: 0121 554 7000.
Date of Issue	June 2021.

Information provided in this leaflet is given in good faith but without warranty or assumed liability, as the conditions of application and use are beyond our control. Data are accurate to the best of our knowledge at the time of issue but may be revised in the light of new knowledge and the user should check that data are current before use. The user must satisfy themselves about the product's suitability for their own purpose and refer to the Safety Data Sheet for this product before use. For industrial use only unless specifically stated otherwise.